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Supreme Court of the United States

OCTOBER TERM, 1928.

No. ~~851~~ 71

MINERALS SEPARATION NORTH AMERICAN CORPORATION,

Petitioner,

against

MAGMA COPPER COMPANY,

Respondent.

BRIEF FOR RESPONDENT IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI.

WILLIAM H. DAVIS,
MERTON W. SAGE,
Counsel for Respondent.

GALLO & ACKERMAN, Inc., 142 Liberty Street, 'Phones—Rector 7257-8.

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vs.

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RIEF FOR RESPONDENT IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI.

While it is true that on January 10, 1929, the Court f Appeals for the First Circuit held invalid claims 1 nd 2 of petitioner's patent 962,678 which claims velve years previously, on May 24, 1917, had been held alid by the Court of Appeals for the Third Circuit; et we do not believe the litigation demands or warrants he attention of this Court, for two reasons:

1. The present conclusion of invalidity arises from **cts**; established in the case at bar but unknown to the udges in the Third Circuit, and constituting direct anticipation of the supposed invention.

2. The naked question whether the patent is valid or nvalid is now of **no general interest or importance.**

I.

The present conclusion of invalidity arises from facts; established in the case at bar but unknown to the Judges in the Third Circuit, and constituting direct anticipation of the supposed invention.

No question of law is involved; nor is the sometimes difficult question of invention, as distinguished from mechanical skill, presented. If the facts are as the Court of Appeals for the First Circuit found them to be, direct anticipation is established.

The essential facts are:

(1) The subject-matter of petitioner's patent 962,678 is the use of a "soluble mineral-frothing agent" in the agitation-froth process of petitioner's earlier patent 835,120. The "soluble mineral-frothing agents" named in patent 962,678 include "amyl acetate and other esters; phenol and its homologues; benzoic, valerianic and lactic acids, acetones and other ketones such as camphor" (R., II, 2; Pat., p. 1, lines 33-36).

(2) It was shown by the evidence, and found as a matter of fact by the Court of Appeals in the instant case, that these substances named in the second patent 962,678 as "soluble mineral-frothing agents" are in fact oils, oily substances, and/or fatty acids; and that these substances were among the "oils, fatty acids, or other substances which have a preferential affinity for metalliferous matter over gangue" (R., III, 178; Pat. 835,120, p. 1, lines 12-15), already known at the date of, and already available for use as flotation agents in, the froth flotation process of the earlier patent 835,120.

For instance, phenol, one of the so-called "soluble mineral-frothing agents" named in patent 962,678, the Court of Appeals of the First Circuit finds to be "specifically named in the prior art patent of Cattermole

777,274 and * * * among the oils or oily liquids of patent No. 835,120" (Opinion, R. I., 953), and the Court there said:

> "Phenol being among the oils or oily liquids of patent No. 835,120 and that patent having disclosed that by reducing the quantity used to a fraction of one per cent. on the weight of the ore and by vigorously agitating the pulp, the agent would effect the process of that patent, it is apparent that a clear disclosure anticipating the patent in suit is shown, for phenol in the quantity used in the process of that patent is wholly dissolved in water."

In like manner it was shown that amyl acetate and amyl alcohol are well known oils of commerce having preferential affinity for metalliferous matter and "undoubtedly oils of the prior art" (Opinion, R., I, 953); and that valerianic acid "is a fatty acid of the prior art patents Nos. 835,120 and 777,274" (same page).

These facts were not established in the Miami case in the Third Circuit. That is clear from the opinion of the District Court and from the opinion of the Court of Appeals.

In the District Court (see *Minerals Separation* vs. *Miami Copper Co.*, 237 Fed., 609, at pp. 634-636), Judge Bradford said* (pp. 635-6):

> "In the process of the second patent in suit, **no oil, fatty acid, or oily substance is introduced** into the mixture.
>
> * * * * * * *

*There were three patents involved in the Miami case—(1) the agitation froth patent 835,120; (2) the patent here sued on, 962,678; and (3) the Greenway patent 1,099,699. Judge Bradford's entire discussion of the patent 962,678 is found on pages 634-636.

> "The novelty of this invention is to be found • • • in the fact that a mineral-frothing agent as the means of separating the metallic particles from the gangue **is substituted for** the oil, fatty acid or other oily substance essential to the process of the first patent in suit." (Emphasis ours.)

In the instant case it was, on the contrary, proved that the "soluble mineral-frothing agents" named in patent 962,678 are in fact oils, fatty acids or oily substances; and that they are not substituted for, but are chosen from among, the "oils, fatty acids or other substances which have a preferential affinity for metalliferous matter over gangue" of patent 835,120.

The Court of Appeals of the Third Circuit in the *Miami* case said, in the majority opinion (244 Fed., 773):

> "The difference between the two patents may be shortly stated to be this: The first process rests upon the use in very small quantity of **an oily substance that does not dissolve in water,** coupled with agitation of the pulp, and this succeeds in producing a special froth that is remarkably effective in recovering the minute particles of ore. The second process **does not employ oil,** or an undissolvable substance; on the contrary, the 'mineral-frothing agent' must be in solution, and *ex vi termini* must therefore be dissolvable. The specification disclaims the use of so large a quantity that part of it remains undissolved." (Emphasis ours.)

But in the instant case it was proved, and the Court found, that among the oily substances of the first patent (835,120) are those that do dissolve in the pulp water; that the substances named in the second patent (962,678) are oils and oily substances already known to be avail-

able for use in the process of the first patent, and that the supposed difference between the two patents does not, as a matter of fact, exist.

II.

The naked question whether the patent is valid or invalid is of no general interest or importance.

The patent expired on June 28, 1927.

Moreover, during the ten years from the date of the decision in the Third Circuit on May 24, 1917, to the date of expiration of the patent on June 28, 1927 petitioner enjoyed the benefit of that favorable decision, and the great bulk of the ore treated in this country was under its license.*

Paragraph IX of the petition shows that in addition to this suit there are but two other suits for infringement. These suits were filed in November 1923 against National Lead Company and its subsidiary St. Louis Smelting and Refining Company. The validity of the patent is, therefore, a question that interests only the petitioner, the respondent and the National Lead Company.

The suit against the National Lead Company is pending in the Third Circuit, and there is no reason why it should not have been, or why it should not now be, pressed to final determination without the interposition of this Court. If petitioner believes that it can establish before the Courts of the Third Circuit that the so-called "soluble mineral-frothing agents" of patent 962,678 are not in fact among the already known oils, oily substances and fatty acids having a preferential affinity for metalli-

*In 1923, when the instant case was on trial, the yearly aggregate of licensed tonnage was 169,041,149 tons (Pltf.'s Exs. 18 and 19; R., II, 83-93).

ferous matter over gangue, of patent 835,120, then it ought to proceed with the litigation against the National Lead Company.

The respondent here by weight of evidence has established the contrary fact. It seems to us that in this litigation we have not yet reached any conflicting decisions of two Circuit Courts of Appeals on the same matter; and will not unless and until the Courts of the Third Circuit make a different finding of fact on the same evidence; or arrive at a different conclusion of validity (if that is conceivable) on the same findings of fact.

FURTHER COMMENTS ON THE PETITION AND ON PETITIONER'S BRIEF.

We think a very wrong impression of the nature and status of this litigation might be derived from some of the things said and suggested in the petition and in petitioner's brief. We therefore add the following comments:

(1) We think that the quotations from the opinion of the Court of Appeals of the First Circuit, printed on page 3 of the petition, might easily be misleading as to what the Court of Appeals meant when it said "We, therefore, decline to follow the decision in the *Miami* case."

In the *Miami* case the agent used by the defendant was partly soluble and partly insoluble. Petitioner there urged that this partly soluble and partly insoluble agent infringed both patent 835,120 and patent 962,678, and the Court of Appeals of the Third Circuit so held. The argument was that in so far as the agent contained an insoluble substance it infringed patent 835,120, and in so far as it contained a soluble substance it infringed

the later patent 962,678. But it was proved in the case at bar, and the Court of Appeals of the First Circuit found as matter of fact, that in order to be effective at all in the agitation-froth process of patent 835,120, the agent used **must be partly soluble.** On this subject the Court of Appeals said (R., I, 955):

> "Furthermore, a study of the testimony in the case and the reason of the thing have convinced us that oleic acid (the agent specifically named in patent No. 835,120 and declared to be immiscible in the patent in suit) and all the mineral-frothing agents that have been used in these processes, in the limited amount prescribed of a fraction of one per cent. on the ore, are soluble to some extent because you can not get froth flotation unless there is present a constituent soluble to an extent sufficient to produce the requisite froth or scum, and the fact that oleic acid, when so used, produces the requisite froth or scum."

This established fact, that all the mineral-frothing agents of patent 835,120 are partly soluble, glaringly disclosed the fallacy of petitioner's contention, and of the Court's conclusion, in the *Miami* case, that organic compounds partly insoluble and partly soluble in water are within the scope of the second patent 962,678. That is the contention of which the Court of Appeals in the instant case said (R., I, 948):

> "* * * and apparently they have obtained a decision to that effect in Miami Copper Co. vs. Minerals Separation, Ltd., 244 Fed., 752, * * * We do not now stop to consider the soundness of this contention and holding, for it is not directly involved in this case, although it will be considered later."

Moreover, as the Court of Appeals pointed out (R., I, 947), patent 962,678 says (R., II, 3, lines 68, et seq.):

> "It is well known that certain of the organic substances we have referred to are not soluble in water in all proportions and that if used in excess might partly remain insoluble in the acidified water and might become mechanically affixed to the metalliferous particles of the ore. **We disclaim any such use of these substances and only claim them in such amount as will enable them to dissolve in the acidified water.**"

In view of the established fact that all the organic mineral-frothing agents of patent 835,120 are partly soluble, plus this explicit disclaimer in the patent 962,678, the Court of Appeals in the instant case reverted to petitioner's contention that a partly soluble mineral-frothing agent infringes patent 962,678 and said (R., I, pp. 955-6):

> "In the Miami Copper case, *supra*, the litigation involved both patent No. 835,120 and the patent here in suit No. 962,678. The agent employed by the defendant in its infringing process was partly soluble and partly insoluble, and the use of such an agent in a fraction of one per cent. on the ore was held to infringe both patents on the ground that it was a conjoint use of both. While such use was plainly within the scope of the disclosure of the first patent (No. 835,120) and in infringement of it, it was not within the scope and an infringement of the second patent, for even assuming that the second patent is valid, its scope, as previously pointed out, is limited to the use of an agent that is wholly in solution in water. This being so, the use of the agent there

> employed was not within the scope and an infringement of the second patent. We, therefore, decline to follow the decision in the Miami case."

It was on this question, not directly involved in this case, that the Court of Appeals of the First Circuit expressly declined to follow the decision in the *Miami* case. On the direct issues in the instant case the evidence was such, in comparison with the issues and evidence in the *Miami* case, that no real conflict existed—beyond the naked circumstance that one Court, on proof of a certain state of facts, held the patent valid in 1917 and the other Court, on a different state of facts, held the patent invalid in 1929.

(2) Petitioner asserts that the Court of Appeals in the instant case has not given proper effect to applicable decisions of this Court.

The suggestion is based upon that part of the opinion of the Court of Appeals (R., I, 950-952) where the Court discusses the opinion of this Court in the *Butte and Superior* case and applies the reasoning of this Court by analogy to the question at issue in the instant case.

Petitioner's whole contention that the process of patent 962,678 differs from the process of patent 835,120 may be thought of as an elaboration of the assertion in patent 962,678 (R., II, 3; Pat., p. 2, lines 58-62) that

> "In the frothing processes hitherto known the substances used to secure a formation of a mineral-bearing froth has been oil or an oily liquid immiscible in water."

In other words, petitioner has contended that the mineral-frothing agents—the "oils, fatty acids, or other substances which have a preferential affinity for metalli-

ferous matter over gangue"—of patent 835,120 exclude substances which are either wholly or in part soluble in water. No such statement is found in the specification of patent 835,120 and, as we have seen, the Court of Appeals in the instant case held as matter of fact on the evidence submitted that all of the mineral-frothing agents of patent 835,120 are of necessity partially soluble in water. And the Court further held that the knowledge of the art at the date of patent 835,120 included the wholly soluble substances named in patent 962,678.

Considering this attempt to exclude from the disclosure of patent 835,120 known substances which are not excluded therefrom in terms, the Court of Appeals of the First Circuit in the instant case referred to an analogous attempt, on the part of petitioner, to limit the disclosure of patent 835,120 in the *Butte & Superior* case. In that case petitioner attempted to exclude from the disclosure of patent 835,120 all non-frothing oils. But this Court held that there was no such limitation expressed in the specification of patent 835,120, and that

> "To give such a construction to the patent would subordinate the clear description contained in it of what are oils of the process, to an implied and vague description and classification which would leave the whole subject again at large, * * *" (250 U. S., 336 at 350).

In like manner, and for like reasons, it is impossible now to exclude from the disclosure of patent 835,120 substances which are soluble in water, when the disclosure contains no such limitation and when it is now found, as a matter of fact, that all the oils, oily substances and fatty acids of patent 835,120 are and must be partially soluble in water.

If this Court will note the extraordinary circumstance that the petitioner's attempt, in the *Butte & Superior*

case, was to exclude "**immiscible**" substances from patent 835,120, whereas its present attempt is to exclude from that disclosure **soluble** substances and to include **only immiscible** substances, it will be seen how well justified was the Court of Appeals of the First Circuit in referring to the decision of this Court in the *Butte & Superior* case to support its conclusions in the instant case. The substances which, in the *Butte & Superior* case, petitioner urged to be exclusively the oils of patent 835,120 were, on petitioner's own showing, soluble substances in whole or in part. This Court not only found that such soluble substances were the oils of patent 835,120 but that also "non-frothing oils [immiscible, if such there are] having the required affinity" were included among the oils of patent 835,120. Since partially soluble oils were included by this Court, on petitioner's own urging, as pre-eminently the oils of patent 835,120, the Court of Appeals of the First Circuit was certainly justified in saying that (R., I, 952):

> "This holding is a complete refutation of the statement in the patent in suit (No. 962,678) where it says that the frothing agents of the prior art are only such as are immiscible in water, to wit:
>
> > 'In the frothing processes hitherto known the substances used to secure the formation of a mineral-bearing froth has been oil or an oily liquid immiscible with water.'"

(3) In petitioner's brief (pp. 7, et seq.) it is urged that the processes of the two patents "are unlike in regard to the kind of frothing agent employed and in regard to its mode of operation in producing the mineral-bearing froth," and counsel say that (brief, p. 8):

> "The process of patent No. 962,678 proceeded **without any coating** of the metalliferous particles,

> which coating was of the essence of the process of patent No. 835,120''

and again (p. 12):

> ''An agent capable of existing 'in solution' in the water of the pulp and thereby on agitation achieving mineral-froth formation and ore concentration, is and **must be** a different physical thing from an agent capable of existing as a coating on the metalliferous matter under the water of the pulp and thereby on agitation achieving mineral-froth formation and ore concentration.''

and again (p. 13):

> ''An agent that dissolved in the water **could not exist as a coating** on anything in that water.'' (Emphasis ours.)

To a person unfamiliar with the subject, these very positive assertions that a substance which dissolves in water cannot coat particles immersed in that water might easily be misleading. The assertion may seem convincing unless the reader is acquainted with the phenomenon of **adsorption from solution.** The fact is, as was established in the instant case and found by the Court of Appeals, that the mineral particles are in fact coated with the dissolved flotation agent by adsorption from the solution; just as the particles of a dyed fabric are coated with the dissolved dye adsorbed from the dyeing solution (R., I, 255, 361). On that subject the Court of Appeals of the First Circuit found the facts to be as follows (R., I, 954):

> ''Then again, the disclosure of these two prior art patents,—that agents having a preferential affinity

for metalliferous matter coat the mineral particles with a slight film,—is supported by the adsorption theory presented in evidence through defendant's witness Taggart, that such agents, though in solution, will attach themselves to and slightly coat the mineral particles.

"The plaintiffs undertook to refute the disclosure of the New Zealand* and the United States patents, —that a soluble agent would coat the metalliferous particles and on agitation produce a froth or scum,— by an experiment which they made; but the experiment amounted to nothing in the absence of the deduction drawn therefrom by the plaintiffs' expert witness, which deduction was contradicted and substantially refuted by the testimony of the defendant's witness."

(4) Asserting that patent 962,678 represents a great advance over patent 835,120, the petition avers (Par. VIII, p. 4) that **porphyry copper ores were not** amenable to concentration by any flotation process prior to the alleged invention of patent 962,678.

That contention was urged before the Court of Appeals in the instant case, and rejected; the Court finding that the process of patent 962,678 is the same as that of patent 835,120. Among the things that respondent's counsel called to the attention of the Court of Appeals, and now calls to the attention of this Court, to refute this assertion of substantial advance resulting in the flotation for the first time of porphyry ores, is the fact that in the *Miami* case **petitioner urged,** and the District Court found, **that porphyry copper ores were successfully floated by the**

*New Zealand patent No. 19,633 of 1905 (R., III, pp. 182-197) corresponds to U. S. patent No. 835,120, and in addition contains the full disclosure of Cattermole U. S. patents Nos. 777,273 and 777,274.

process of patent 835,120. In the *Miami* case Judge Bradford said (237 Fed., 618):

> "A great advance in the art of ore concentration has resulted from the process of **the first patent** in suit [835,120] in the efficient recovery of slimes. With the use of **that process** ore may be so finely ground as to insure the thorough separation of the metallic particles and gangue, and great savings effected. The profit so saved in a single year from the output of the principal **porphyry copper mines**, including the defendant's, has been estimated by one of the expert witnesses as more than $17,000,000." (Bracketed portion and emphasis ours.)

Furthermore, the only remaining litigation, that against National Lead Company and its subsidiary St. Louis Smelting and Refining Company, involves only flotation of lead and/or zinc ores.

(5) The cases in this Court, in the Courts of the Third Circuit, and in the Courts of the First Circuit, are listed in the petition (index page). A convenient chronological summary of the cases in this Court and in the Third Circuit is found in the opinion of the Court of Appeals for the Third Circuit (244 Fed., at p. 757). Petitioner's brief says (p. 14): "* * * the *Miami* case was before this Court" in the *Butte and Superior* case, and argues that it was approved by this Court because it is mentioned in a footnote listing the cases in which patent 835,120 has been involved. But patent 962,678 was not involved in the *Butte and Superior* case, nor was that case in any sense a review by this Court of any issues raised or decided in the *Miami* case. One might equally well argue that this Court approved the dissenting opin-

ion of Judge Buffington in the *Miami* case, since that, too, is specifically mentioned in the margin note.

It is submitted that the petition should be denied.

WILLIAM H. DAVIS,
MERTON W. SAGE,
Counsel for Respondent.

New York, N. Y., May 3, 1929.